

Claims:

1. A bioprosthetic device for soft tissue attachment, reinforcement, or construction, the device comprising
a sheet of naturally occurring extracellular matrix; and
5 a sheet of synthetic mesh coupled to the naturally occurring extracellular matrix portion.
2. The bioprosthetic device of claim 1, wherein the sheet of naturally occurring extracellular matrix is a sheet of SIS.
3. The bioprosthetic device of claim 1, wherein the sheet of
10 naturally occurring extracellular matrix and the sheet of synthetic mesh are generally planar.
4. The bioprosthetic device of claim 1, wherein the sheet of naturally occurring extracellular matrix is a top tissue layer of naturally occurring extracellular matrix and is coupled to a bottom tissue layer of naturally occurring
15 extracellular matrix, and the sheet of synthetic mesh is coupled to and positioned to lie between the top tissue layer and the bottom tissue layer.
5. The bioprosthetic device of claim 1, wherein the sheet of synthetic mesh includes a length and a width equal to or greater than a length and a width of the sheet of naturally occurring extracellular matrix.
- 20 6. The bioprosthetic device of claim 5, wherein the naturally occurring extracellular matrix is dehydrated and length and width of the sheet of naturally occurring extracellular matrix is the same as the length and width of the sheet of synthetic mesh.
7. The bioprosthetic device of claim 4, wherein the sheet of
25 naturally occurring extracellular matrix is circular in shape and the sheet of synthetic mesh is circular in shape
8. The bioprosthetic device of claim 1, wherein the sheet of naturally occurring extracellular matrix comprises multiple layers of naturally occurring extracellular matrix.
- 30 9. The bioprosthetic device of claim 1, wherein the sheet of naturally occurring extracellular matrix is perforated.
10. The bioprosthetic device of claim 1, further comprising

multiple sheets of naturally occurring extracellular matrix and multiple sheets of synthetic mesh, wherein the bioprosthetic device comprises a stack of the sheets of naturally occurring extracellular matrix separated by the sheets of synthetic mesh.

11. The bioprosthetic device of claim 1, wherein the sheet of
5 synthetic mesh is coated with comminuted SIS.

12. The bioprosthetic device of claim 1, wherein the sheet of synthetic mesh is bioabsorbable.

13. The bioprosthetic device of claim 1, wherein the sheet of synthetic mesh has a rate of absorption that is slower than a rate of absorption of the
10 sheet of naturally occurring extracellular matrix.

14. The bioprosthetic device of claim 1, wherein the synthetic portion comprises a material selected from the group consisting of ProleneTM, VicrylTM, and MersileneTM.

15. A bioprosthetic device for soft tissue attachment,
15 reinforcement, and/or reconstruction, the device comprising
a top sheet of small intestinal submucosa (SIS) comprising multiple SIS tissue layers, the top sheet having a first surface area,
a bottom sheet of SIS comprising multiple SIS tissue layers, the bottom sheet having a second surface area, wherein the first area and second area are the
20 same;
and a mesh device having a third surface area, the mesh device coupled to and positioned to lie between the top and bottom sheets of SIS.

16. The bioprosthetic device of claim 15, wherein the third surface area is equal to the first and second surface areas.

25 17. The bioprosthetic device of claim 15, wherein the third surface area is greater than the first and second surface areas.